CLAIMS

1. A method for signal isolation in electronic circuits, further comprising:

acquiring a signal of interest (SOI) at a local node;

coupling the SOI to one or more transmission paths, wherein each transmission path of the one or more transmission paths has a phase and a delay distinct from others of the one or more transmission paths;

setting the delay and phase of each transmission path of the one or more transmission paths; and

combining the one or more transmission paths at a remote node, wherein a signal at the remote node is created by summing one or more signals received on the one or more transmission paths, said summation occurring in an in-phase manner in accordance with the selection of the delay and phase of each transmission path of the one or more transmission paths.

2. The method of claim 1, wherein the electronic circuit is an integrated circuit.

3. The method of claim 1, wherein the electronic circuit is implemented using distributed broadband technology.

4. The method of claim 1, wherein the one or more delays corresponding to the one or more transmission paths are set according to predetermined values.

5. The method of claim 1, wherein the one or more phases corresponding to the one or more transmission paths are set according to predetermined values.

6. The method of claim 1, wherein the one or more phases corresponding to the one or more transmission paths are equal.

7. The method of claim 1, wherein the one or more corresponding phased signals have the same amplitude.

8. The method of claim 1, wherein the signal is created using a signal source external to the local node.

9. The method of claim 1, wherein a plurality of noise contributions originating from a plurality of circuit sources other than the SOI on the corresponding one or more transmission paths are additive in an out-of-phase manner.

10. The method of claim 1, wherein the one or more delays corresponding to the one or more transmission paths are determined by the length of the one or more transmission paths.

11. The method of claim 1, wherein the one or more signals summed at the receive node is less than the number of the one or more signals received on the one or more transmission paths.

12. A structure for signal isolation in electronic circuits, comprising:

a first node of one or more nodes of an input stage, said first node operable to receive a signal of interest (SOI);

the first node of the input stage coupled to one or more nodes of the one or more nodes through one or more corresponding coupled elements, thereby creating one or more corresponding phased signals corresponding to the SOI;

each node of the one or more nodes coupled to one or more transistive elements, said one or more transistive elements operable to create one or more output signals at an output stage, said one or more output signals proportional to the one or more corresponding phased signals;

one or more remote nodes at the output stage coupled to the one or more transistive elements, wherein the one or more remote nodes is operable to receive an output signal; and

one or more additive elements coupled to the one or more remote nodes, wherein the one or more remote nodes are combined by the one or more additive elements to create a destination signal, said destination signal created by summing the one or more corresponding phased signals in an in-phase manner.

13. The structure of claim 12, wherein the structure is implemented using distributed broadband technology.

14. The structure of claim 12, wherein the one or more corresponding phased signals have the same amplitude.

15. The structure of claim 12, wherein each phase shift of the one or more corresponding coupled elements are the same.

16. The structure of claim 12, wherein the input stage and output stage are components of an RF power amplifier application.

17. The structure of claim 12, wherein the one or more transistive elements contain a corresponding one or more parasitic noise elements, and the noise contributions due to the one or more parasitic noise elements are combined with the destination signal in an out-of-phase manner.

18. The structure of claim 12, wherein each coupled element of the one or more coupled elements is one of an inductor and a capacitor.

19. The structure of claim 12, wherein each transistive element of the one or more transistive elements is a transistor.

20. The structure of claim 12, wherein the use of one or more coupled elements creates an artificial transmission line at the input stage.

21. The structure of claim 12, wherein the one or more additive elements apply an equal phase shift to a signal input to the one or more additive elements.

22. The structure of claim 21, wherein each phase shift of the one or more additive elements is equal to each phase shift of the one or more corresponding coupled elements.

23. The structure of claim 12, wherein the one or more remote nodes are coupled to one or more inductive elements, wherein the one or more corresponding inductive elements are operable to couple a first node of the one or more remote nodes with a second node of the one or more remote nodes.

24. The structure of claim 23, wherein the one or more remote nodes are further coupled to a first terminal of one or more corresponding power handling devices, said power handling devices identical to the one or more additive elements.

25. The structure of claim 24, wherein the one or more power handling devices are identical.

26. The structure of claim 24, wherein a second terminal of the one or more power handling devices are operable to be combined to create the destination signal.

27. The structure of claim 26, wherein the destination signal is realized using a bridge-tee element coupled to the second terminal of the one or more additive elements.

28. The structure of claim 12, wherein each output of the one or more transistive elements is operable to be coupled to a supply choke device of one or more supply choke devices, said supply choke device then coupled to a remote node of the one or more remote nodes.

29. The structure of claim 28, wherein each supply choke device of the one or more supply choke devices is operable to attenuate a signal input to the supply choke device.

5